

**ABSTRACT**

**THE INFLUENCE OF RED GINGER JUICE (*Zingiber officinale var Rubrum*) ON DECREASING BLOOD GLUCOSE CONDITIONS IN CLIENTS DIABETES MELLITUS**

Quasy Experimental Study in Puskesmas Mojo  
Surabaya

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**Background:** Diabetes Mellitus (DM) is a disease in the occurrence of resistance and insulin deficiency that blood glucose levels increase. Uncontrolled blood glucose levels can cause various complications. In uncontrolled cases of uncomplicated DM requires additional (complementary) therapy that may aid medically administered treatment therapies. This therapy provides a red ginger juice (*Zingiber officinale var Rubrum*), in the ginger contains a gingerol compound that can repair damaged beta cells and can improve the GLUT 4 translocation that serves as the opening of the entrance of glucose into the cell.

**Method:** This study aims to determine the effect of red ginger juice on changes in blood glucose levels. The population was all DM patient at Health Center Mojo Surabaya. This research uses Quasy Experiment experiment design, one-group pre-post test design. Total sample were 18 respondents taken according to the inclusion criteria. The dependent variable were giving red ginger juice and the independent variable was change of blood glucose level 2 hour Post Prandial. Data were collected by measuring 2 hours Post Prandial blood glucose before and after administration of red ginger juice. Data were analyzed by using Paired t Test and Independent t Test with significance level  $<0,005$ . **Results:** The results shown from the intervention of red ginger extract in the treatment group were  $p = 0.006$  ( $p < 0.005$ ) which means that there are significant differences. While in the comparison group is  $p = 650$  ( $p > 0.05$ ) which means there is no significant difference. **Discussion:** The conclusion of this study there is a significant difference between blood glucose levels of 2 hours PP pre and post in the treatment group while in the comparison group there was no significant difference. Results of comparison of two groups there was no significant difference between blood glucose levels 2 hours Post preandial pre and post.

**Keyword :** *Zingiber officinale var Rubrum* , blood glucose levels of 2 hours post prandial, diabetes mellitus